

Work Order ID 88187

88187

Page 1

July-31-12 10:10:30 AM

Item ID: DSI 9052-013

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Pod Quick Release

Start Date: 7/20/12 Start Qty: 1.00

1

Cust Item ID:

Required Date: 8/31/12 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start ***NR1***

Approvals: Process Plan: MLJ Date: 12/08/10

Tooling: _____ Date: _____

Stop ***NR2***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
DSI 9052	E

100

0.00

100

DOCUMENT CONTROL

0.00

DC

Memo

Document Control

Photocopy bluefile & type labels per PPP 9052-013 CHG001

110

0.00

110

Pick Kit

0.00

Packaging

Memo

Packaging

120

0.00

120

QC4- 100% Inspect kits for completeness

0.00

QC

Memo

Quality Control

DA 16 12/08/13

MLJ 12-9-12

12/9/12

DA 16 12/9/13

YV

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY											
Landing Gear			General			Grain			Other		
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced							
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure							
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld							
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled							
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved								
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong								
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other							
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset									
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration									
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence									
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions									

Work Order ID 88187

88187

Page 2

July-31-12 10:10:30 AM

Item ID: DSI 9052-013

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Pod Quick Release

Start Date: 7/20/12 Start Qty: 1.00

1

Cust Item ID:

Required Date: 8/31/12 Req'd Qty: 1.00

1

Customer:

Reference:

Run Start *NR1*

Approvals: Process Plan: Date: Tooling: Date:

Stop *NR2*

QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130

0.00

130

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D9052-013 Location: 32

12/9/13

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

Memo

0.00

Quality Control

12/9/14

12-09-13

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
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Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY									
Landing Gear			General						
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong	<input type="checkbox"/> Other					
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge						
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

Picklist Print

July-31-12 10:10:30 AM

Page 1

Work Order ID: 88187

Parent Item: DSI 9052-013

Parent Item Name: Pod Quick Release

Start Date: 7/20/12

Required Date: 8/31/12

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A02.05.15New IssueNG

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
BLRS-010 Pip Pin		Purchased	No			110	Each	13.0000	1	1			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST283		13							
				118207		1							
				120178		2							
				<u>121374</u>		10							
BLRS-020 Pip Pin		Purchased	No			110	Each	21.0000	3	3			
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST283		21							
				121322		8							
				122120		3							
				<u>122168</u>		10							

12/9/12

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		AGAINST DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> </div> <div> Water Jet <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/> </div> </div>					
Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector	
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Setup	<input type="checkbox"/>										
Other	<input type="checkbox"/>										
Process	<input type="checkbox"/>										
Supplier	<input type="checkbox"/>										
Training	<input type="checkbox"/>										
Unapproved	<input type="checkbox"/>										

FAULT CATEGORY											
Landing Gear			General								
<input type="checkbox"/>	Bending	<input type="checkbox"/>	Bend	<input type="checkbox"/>	Grain	<input type="checkbox"/>	Ovalized	<input type="checkbox"/>	Pressure/Forced		
<input type="checkbox"/>	Centre Not Concentric to O/S	<input type="checkbox"/>	BOM/Route	<input type="checkbox"/>	Hardware	<input type="checkbox"/>	Over/Under tolerance	<input type="checkbox"/>	Temperature/Cure		
<input type="checkbox"/>	Cracks	<input type="checkbox"/>	Broken/Damaged	<input type="checkbox"/>	Inspection Incomplete	<input type="checkbox"/>	Part Incorrect	<input type="checkbox"/>	Weld		
<input type="checkbox"/>	Crushed/Crimped.	<input type="checkbox"/>	Burrs	<input type="checkbox"/>	Instructions Incomplete/Unclear	<input type="checkbox"/>	Part Lost/Missing	<input type="checkbox"/>	Wrong Stock Pulled		
<input type="checkbox"/>	Cuffs	<input type="checkbox"/>	Contamination	<input type="checkbox"/>	Maintenance	<input type="checkbox"/>	Part Moved				
<input type="checkbox"/>	Heat Treat	<input type="checkbox"/>	Countersink	<input type="checkbox"/>	Mislabeled	<input type="checkbox"/>	Positioned Wrong				
<input type="checkbox"/>	Inspection Strip in Tube	<input type="checkbox"/>	Cut Too Short	<input type="checkbox"/>	Misread	<input type="checkbox"/>	Power Loss/Surge	<input type="checkbox"/>	Other		
<input type="checkbox"/>	Ripples in Bend	<input type="checkbox"/>	Drill Holes	<input type="checkbox"/>	Offset						
<input type="checkbox"/>	Torque Waves in Extrusion	<input type="checkbox"/>	Drawing	<input type="checkbox"/>	Out of Calibration						
<input type="checkbox"/>	Turning Sequence	<input type="checkbox"/>	Finish	<input type="checkbox"/>	Out of Sequence						
<input type="checkbox"/>	Wave/Twist in Tube	<input type="checkbox"/>	Folio	<input type="checkbox"/>	Outside Dimensions						

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

DART SERVICE INSTRUCTION**TO AMEND INSTALLATION INSTRUCTIONS D350-607 REV. F OR LATER REV.**

(REF. CANADIAN STC: SH94-14, REF. FAA STC: SR00213NY)

AND TO AMEND INSTALLATION DRAWING D350-602 REV. E OR LATER REV.

(REF. CANADIAN STC: SH93-97, REF. FAA STC: SR01144NY)

PURPOSE: TO ALLOW SUBSTITUTION OF THE BASKET/ POD ATTACHMENT BOLTS WITH QUICK RELEASE PINS

THE AN4-12A / AN4-15A / AN4-16A BOLTS USED ON D2230-1 CLAMPS MAY BE REPLACED WITH STAINLESS STEEL POSITIVE LOCKING QUICK RELEASE PINS WITH A MINIMUM DOUBLE SHEAR STRENGTH OF 2400 LBS AND 0.25 INCH DIAMETER.

BOLT	MIN GRIP	POSSIBLE QUICK RELEASE PIN REPLACEMENT
AN4-12A	1.0"	AVIBANK: BLC4B10S, BLC4TA10S, BLC4R10S, BLC4LA10S MS NUMBER: MS17984C410, MS17985C410, MS17986C410, MS17987C410 REID: BLRS-010, BLBS-010
AN4-15A / AN4-16A	1.3"	AVIBANK: BLC4B13S, BLC4TA13S, BLC4R13S, BLC4LA13S MS NUMBER: MS17984C413, MS17985C413, MS17986C413, MS17987C413 REID: BLRS-020, BLBS-020

THE FOLLOWING OPTIONAL KITS ARE AVAILABLE FROM DART TO PROVIDE QUICK RELEASE CAPABILITY. DART HELI-UTILITY-BASKETS™ D350-607-041 @ CHG 008, D350-607-043 @ CHG 005, D350-607-045 @ CHG 003, D350-607-047 @ CHG 003, OR LATER CHANGE NUMBERS, OR KITS MODIFIED PER SERVICE INSTRUCTION DSI 9342 USE AN4-15A BOLTS AND SHOULD PURCHASE THE DSI-9052-013 KIT. EARLIER CHANGE NUMBERS THAT HAVE NOT BEEN MODIFIED PER SERVICE INSTRUCTION DSI 9342 USE AN4-12A BOLTS AND SHOULD PURCHASE THE DSI-9052-011 KIT.

QTY -011	QTY -013	PART NUMBER	DESCRIPTION
X		DSI-9052-011	QUICK RELEASE KIT, FOR D350-607-041 (CHG ≤007) / -043 (CHG ≤004) / -045 (CHG ≤002) / -047 (CHG ≤002)
	X	DSI-9052-013	QUICK RELEASE KIT, FOR D350-602-011/-013/-014 & D350-607-041 (CHG 008) / -043 (CHG 005) / -045 (CHG 003) / -047 (CHG 003)
4	1	BLRS-010	QUICK RELEASE PIN (1.0" GRIP)
	3	BLRS-020	QUICK RELEASE PIN (1.5" GRIP)




IT IS ACCEPTABLE TO LEAVE THE D2230-1/-3 CLAMPS INSTALLED ON THE CROSSTUBES WHEN THE BASKET OR POD IS REMOVED. WEIGHT & BALANCE, FOR CLAMPS ONLY, IS 1.8lb (0.82kg) @ STA 135in (3.43m) & BL ±36in (±0.91m).

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

DATE: 09.06.23
CERT. NO.: SH94-14 / SH93-97
ISSUE NO.: 4 / 4

E	-013 KIT NOW APPLICABLE TO NEW D350-607 KITS	CP	09.06.23
D	ADD CLAMPS ONLY NOTE	KJ	04.03.23
C	ADD DSI 9052-013	CP	03.12.11
B	ADD PART NUMBERS	BW	96.11.13
A	NEW ISSUE	MM	96.11.04
REV.	DESCRIPTION	BY	DATE
DESIGN	MM	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED		DRAWING NO.	REV. E
MFG. APPR.	N/A	DSI 9052	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		QUICK PIN REPLACEMENT	NTS
DATE	09.06.23	COPYRIGHT © 1996 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	